

Abstract:

The invention concerns a roller track device based on simple kinematics without energy input, enabling reduction of the number of parts, of production cost of the assembly and of its space requirement, easy maintenance, and designed for being fitted on new handling apparatuses as well as for retrofitting. The roller track device (100) comprises a rail (310) bearing the static load, a guard rail (210) housed in the rail (310) and wherein are mounted rolling members (230) bearing the moving load. The guard rail (210) is coupled to a pivoting lever (410) co-operating with a lift bar (450) directly mounted on a machine (20) for moving the guard rail (210) relative to the rail (310) between a low position and a high position, wherein the load is supported either by the rail (310) or by the guard rail (210). The pivoting lever (410) transforms the vertical upward force exerted by the lift bar (450) into a horizontal force on the guard rail (210) to move it in horizontal translation (Th). The rail (310) comprises inclined ramps (331) co-operating with the rolling members (230) to move it in vertical translation (Tv) simultaneously with its horizontal movement (Th). The invention is useful for transferring heavy loads in a substantially horizontal plane between a fork handling apparatus and a machine such as a machine-tool, a press, and injection machine and the like.